

UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/637,620	08/11/2003	Manus P. Henry	02052-079004	2449
26171	7590 04/15/2005		EXAMINER	
FISH & RICHARDSON P.C.			BARBEE, MANUEL L	
1425 K STREET, N.W. 11TH FLOOR			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20005-3500			2857	
			DATE MAILED: 04/15/2003	5

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Supplemental		
Notice of Allowability	10/637,620 Examiner	HENRY ET AL. Art Unit
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Examiner	Artonic
	Manuel L. Barbee	2857
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS (herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this a or other appropriate communicati GHTS. This application is subject	application. If not included on will be mailed in due course. THIS
1. X This communication is responsive to papers filed 25 Janua	<u>ry 2005</u> .	
2. ☑ The allowed claim(s) is/are <u>11-14 and 16-57</u> .		
3. $igotimes$ The drawings filed on 25 January 2005 are accepted by the	e Examiner.	
4. ☐ Acknowledgment is made of a claim for foreign priority un a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give for the complex of the complex of Draftspers and including changes required by the Notice of Draftspers and including changes required by the attached Examiner's Paper No./Mail Date [b) ☐ including changes required by the attached Examiner's Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the paper No./Mail Date DEPOSIT OF and/or INFORMATION about the depose attached Examiner's comment regarding REQUIREMENT is also and the priority and the depose attached Examiner's comment regarding REQUIREMENT is also and the priority and the depose attached Examiner's comment regarding REQUIREMENT is also and the priority and the depose attached Examiner's comment regarding REQUIREMENT is also and the priority and the depose attached Examiner's comment regarding REQUIREMENT is also and the priority and the priority and the depose attached Examiner's comment regarding REQUIREMENT is also and the priority and th	been received. been received in Application No. cuments have been received in this of this communication to file a rep ENT of this application. itted. Note the attached EXAMINE as reason(s) why the oath or declar t be submitted. on's Patent Drawing Review (PTG a Amendment / Comment or in the selection of the drawn of the draw	is national stage application from the is national stage application from the ly complying with the requirements ER'S AMENDMENT or NOTICE OF aration is deficient. O-948) attached Coffice action of wings in the front (not the back) of 11(d). In must be submitted. Note the
Attachment(s) 1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 3/23/05 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview Summa Paper No./Mail D 8), 7. ☐ Examiner's Amen	Date

Application/Control Number: 10/637,620 Page 2

Art Unit: 2857

DETAILED ACTION

Allowable Subject Matter

- 1. Claims 11-14 and 16-57 are allowed.
- 2. The following is an examiner's statement of reasons for allowance: None of the prior art teaches a controller for a flowmeter that includes an input module, a signal processing system, an output module and a control system to modify the drive signal and maintain oscillation of the flowtube during a time in which an apparent density of the fluid flow, as determined by the signal processing system based on the sensor signal characteristics, drops by more than ten percent in response to an introduction of gas within the fluid flow, as shown in claim 1. None of the prior art teaches a method for operating an flowmeter that includes receiving a sensor signal, processing the sensor signal, determining drive signal characteristics, and a flow transition characterized by the drive gain rising in conjunction with a reduction in an apparent density of the fluid flow and transitioning the flowmeter from a first state in which a substantially nonaerated fluid flow exists in the flowtube to a second state in which an aerated fluid flow exists in the flow tube based on the flow transition, as shown in claim 18. None of the prior art teaches a flowmeter that includes a vibratable conduit, a driver and a control and measurement system that receives a first signal during non-aerated flow and a second sensor signal upon introduction of gas to the fluid flow and generates a second drive signal to update the drive gain in response to the introduction of gas and wherein the drive gain update rate is at least five percent of the drive frequency, as shown in claims 25 and 38. None of the prior art teaches a flowmeter that includes an input

module, a signal processing system and a control system to modify the drive signal and maintain oscillation of the flowtube and incrementally changes the drive gain at least once per forty cycles or where the response time is less than 100 ms and an output module, as shown in claims 32 and 47.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 571-272-2212. The examiner can normally be reached on Monday-Friday from 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/637,620

Art Unit: 2857

Page 4

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mlb February 1, 2005

> MARC S. HOFF V SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800